

## NATIONAL INSTITUTES OF HEALTH NATIONAL INSTITUTE OF CHILD HEALTH AND HUMAN DEVELOPMENT

### Introduction

The fellowship in Pediatric Endocrinology is a three-year ACGME-accredited program providing comprehensive training in clinical patient management and guidance in the development of research skills. The fellowship is at the National Institute of Child Health and Human Development (NICHD) and based at the National Institutes of Health (NIH) Clinical Center, in Bethesda, Maryland (NIH-CC). The NICHD program is based at one of the largest and most sophisticated research institutions in the United States. The clinical center maintains clinical research protocols investigating the treatment of adrenal and pituitary tumors, congenital adrenal hyperplasia, precocious puberty, idiopathic juvenile osteoporosis, Cushing's syndrome, obesity, and others. The fellow gains critical skills in the construction and execution of clinical research projects while learning about some of the more rare pediatric endocrine disorders.

Participating institutions include the National Human Genome Research Institute (NHGRI) within the NIH, and outside the NIH, those represented by the National Capital Consortium and based at the Uniformed Services University of the Health Sciences (USUHS), Walter Reed Army Medical Center (WRAMC) and National Naval Medical Center, Bethesda (NNMC), Johns Hopkins University (JHU) Department of Pediatrics, Division of Pediatric Endocrinology, and, finally, the cosponsoring institution, Georgetown University (GU) Department of Pediatrics. GU, JHU, WRAMC, and NNMC serve as primary care facilities, and WRAMC and NIH-CC house large tertiary care referral and research centers. These facilities make available to our fellows pediatric endocrine, diabetes, oncology, metabolic, bone disorders, and other pediatric subspecialty clinics and consult services, and general pediatric inpatient and intensive care units. The program has also entered in agreement with GU and provides a one-month elective on Pediatric Endocrinology and Clinical/Medical Genetics at the NIH for GU residents. Since 2004, 12 residents (PL-2) per year, from GU spend one month at the NIH-CC wards and clinics.

The fellowship is designed to provide clinical and research exposure that allows for the development of academic Pediatric Endocrinologists with experience in both clinical and bench research. The first year of the fellowship is dedicated to the acquisition of necessary clinical skills from all aspects of the principles and practice of Pediatric Endocrinology. It is during that year that the fellows rotate through the NIH-CC and the participating hospitals. The second and third years are focused research years allowing for training in laboratory or clinical research. During these two years, fellows also receive appropriate courses on statistics, biotechnology and laboratory methods, grant and scientific

paper writing, and the development and execution of clinical trials. Pediatric Endocrine fellows maintain a weekly continuity clinic with a variety of patients at the NIH-CC and have the option of attending continuity clinics at the participating institutions beyond their first clinical year.

The NICHD fellowship program in Pediatric Endocrinology is among the largest and most prestigious in the world. Detailed information regarding the fellowship is available at <http://www.pediatricendocrinology.nichd.nih.gov/index.html> and also at the NIH training site: <http://www.training.nih.gov/onlineapps/trainingprograms>

### Educational Program

The Pediatric Endocrinology Fellowship at NIH consists of one year of clinical training, and two year of combined clinical training and research training.

### Clinical Training Rotations

A typical training schedule for first-year fellows includes the following rotations:

Rotation	Duration	Program Director
Johns Hopkins University Hospital	8 weeks	David Cooke, MD
Georgetown University	6 weeks	Val Abassi, MD
Walter Reed Medical Center/ National Naval Hospital	8 weeks	Gary Francis MD, PhD
NIH Clinical Research Center (CRC)	5 months	Constantine Stratakis MD, DSc
Genetics (NIH CRC)	4 weeks	Maximilian Muenke MD

See also: USUHS Department of Pediatrics Fellowship description <http://www.usuhs.mil/pediatrics/endocrinology.htm> and at GU: Georgetown University Hospital Pediatric Endocrinology Fellowship: <http://www.georgetownuniversityhospital.org/> Georgetown Pediatrics: <http://www.georgetownpediatrics.org>

During the second and third years, mandatory clinical responsibilities are limited to a half-day continuity clinic/week and providing inpatient pediatric endocrine consultation on an on-call basis.

### Didactic Training

Regularly scheduled didactic courses, seminars, and case conferences enhance clinical experience. These include the following weekly events:

- Endocrine Grand Rounds
- Pediatric Endocrine Case Conference
- Pediatric post-clinic conference
- Lecture series covering both clinical and research topics
- Journal Club (once a month)
- Board review (weekly)

Fellows are encouraged to attend at least one national/international professional meeting/year during the three fellowship years.

**Research Training**

Fellows learn how to develop a research protocol, conduct a study, evaluate the results, and create a presentation or a manuscript suitable for publication. Work in a laboratory setting performing state-of-the-art basic science research is closely supervised by internationally known mentors. During the first year, a research mentor is chosen and the project for each fellow and progress on it are monitored by a committee, as recommended by the American Board of Pediatrics (see [www.abp.org](http://www.abp.org)). With the mentor's help, a topic of special interest is defined and a research protocol is developed. The second and third years of the fellowship are dedicated to the successful completion of the selected project(s) with minimal clinical duty requirements. Check also the following sites for more information on research training at the NIH:

NIH Graduate Partnerships Program:

<http://gpp.nih.gov/Researchers>

NIH Office of Intramural Training and Education:

<http://www.training.nih.gov>

**Call Frequency**

There is no in-house call. During the first year, pediatric endocrine fellows are on call from home, supported by one of the endocrine attendings. During the second and third years, fellows take call from home when they participate in the pediatric endocrine consult service. Third-year fellows attend one month in the wards of the NIH-CRC and they are on-call from home for the ward for these 4 weeks.

**Teaching Opportunities**

Third-year fellows are required to take a supervisory role and cover the pediatric endocrine inpatient service at the NIH-CC for one month. During these 4 weeks, the senior fellow supervises first-year fellows, residents, and students and is responsible for teaching rounds and conferences.

**Evaluation and Quality Assurance**

The fellow meets with the program director, the mentor, and the supervising committee on a regular basis to assess personal goals and objectives, and to review evaluations from the staff. All fellows and other staff participate in regular staff meetings, and quality assurance is monitored both at the program and at the hospital level by regular (weekly and other) meetings.

**Program Faculty and Research Interests****Constantine A. Stratakis, MD, MDScI**

*Director & Chief, Section on Endocrinology & Genetics/DEB & Heritable Disorders Branch, NICHD Genetics of adrenocortical and pituitary diseases and related pediatric genetic syndromes.*  
(<http://dir2.nichd.nih.gov/nichd/deb/segan/index.htm>)

**Jeffrey Baron, MD**

*Head, Unit on Growth & Development, NICHD Regulation of skeletal growth.*  
(<http://eclipse.nichd.nih.gov/nichd/deb/ugd/index.htm>)

**Carolyn Bondy, MD**

*Chief, Developmental Endocrinology Branch, NICHD The IGF system, Turner syndrome and the X chromosome.*  
(<http://eclipse.nichd.nih.gov/nichd/deb/> and <http://turners.nichd.nih.gov/>)

**Penelope Feuillan, MD**

*NHGRI, NICHD McCune-Albright and other genetic syndromes with pediatric endocrine manifestations.*

**Kurt Griffin, MD, PhD**

*SEGEN/DEB, NICHD, NIH Mouse models of endocrine disorders; protein kinase A system.*  
(<http://dir2.nichd.nih.gov/nichd/deb/segan/index.htm>)

**Deborah Merke, MD**

*Chief of Pediatric Services Clinical Center, NIH Congenital adrenal hyperplasia (CAH) and related disorders.*

**Kristina Rother, MD**

*NIDDK, NIH Pediatric diabetes mellitus, islet cell transplantation, lipodystrophy and related disorders.*

**Jack Yanovski, MD, PhD**

*Head, Unit on Growth & Obesity, NICHD Physiology, psychology and genetics of obesity.*  
(<http://eclipse.nichd.nih.gov/nichd/deb/ugo/ugo.htm>)

**Margaret F. Keil, MS, PNP**

*Director, Pediatric Endocrine Clinical Services, Pediatric Endocrinology Training Program Treatment, diagnostics and nursing and quality-of-care issues for pediatric endocrine patients with CAH, other adrenal and pituitary diseases.*

**Application Information**

Applicants will need to provide/complete:

1. Online Application  
(<http://www.training.nih.gov/clinical/index.asp>, Click on "Training Programs for Physicians")
2. Cover letter
3. Curriculum vitae
4. Bibliography
5. Statement of Research Interests and Goals
6. Three letters of recommendation

Further information and application material may be obtained from:

**Sue Perdue, Assistant to the Director of the Pediatric Endocrinology Program, and/or Dr. Constantine Stratakis at: Pediatric Endocrinology Training Program**  
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